

$$f_1 = nl_2(y_3) + nl_4(y_1)$$

$$f_2 = nl_2(y_5)$$

$$f_3 = nl_3(y_5) + nl_2(y_5) + nl_2(y_4)$$

$$f_4 = nl_1(y_2) + nl_1(y_2) + nl_4(y_4)$$

$$f_5 = nl_4(y_4) + nl_1(y_4)$$